To: Durno, Mark[durno.mark@epa.gov]

From: Scott Smith

Sent: Tue 8/9/2016 6:06:20 PM **Subject:** FW: bacteria and molds-

;;;; fyi

From:

Judith Zelikoff < Judith.Zelikoff@nyumc.org > Date: Monday, August 8, 2016 at 6:21 PM To: Scott Smith <ssmith@opflexinventor.com >

Subject: bacteria and molds-

Hi Scott, Certain bacteria can produce acetone through fermentation metabolism. A particular species of Clostridium is well known to due this through anaerobic (without oxygen metabolism).

Some species of bacteria and molds produce "microbial volatile organic compounds (mVOCs). Many of these emitted chemicals are identical to those originating from solvent-based building materias, including alcohols, aldehydes, ketones, hexane, methylene chloride, benzene and acetone. Some microorganisms can also produce ammonia and other nitrogen-containing compounds. Health effects from mVOCs have not been specifically studied but are implicated in some health effects and odor-related health complaints (Biological Risk Engineering Handbook, 2003).

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